

REMARKS

Applicants submit this Reply in response to the non-final Office Action mailed June 15, 2009. Claims 14-22 are pending in this application, of which claim 14 is independent. By this reply, Applicants have amended claims 14, 16, 17, and 19-21. No new matter has been added.

In the Office Action, the Examiner rejected claims 14-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention; and rejected claims 14-22 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,922,100 (“Cain”).

In this Reply, Applicants have amended independent claim 14 to recite:

A burner for a vapour deposition process, comprising: a central nozzle for ejecting a glass precursor material, said central nozzle having a concave shaped cross-section; and an annular nozzle surrounding said central nozzle for ejecting an innershield gas.

Support for this amendment can be found in Applicants' specification at least at page 3, lines 14-21 and Figures 1 and 2. Applicants have also amended claims 16, 17, and 19-21.

Applicants respectfully traverse all pending rejections for at least the reasons discussed below.

Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 14-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner asserts that

the term “crown” is indefinite as to its meaning and “it is unclear if the term ‘crown’ [] has the scope of ‘highest part’, or if it is directed to a circle of ports.” Office Action at 2.

Although Applicants disagree that the term “crown” is indefinite as used throughout Applicants’ specification and clearly depicted in the Figures, in the interest of advancing prosecution in this case, the term has been deleted and replaced with the term “ring.” Applicants also note that “the subject matter of the claim need not be described literally (i.e., using the same terms or in *haec verba*) in order for the disclosure to satisfy the description requirement” of 35 U.S.C. § 112, first paragraph. M.P.E.P. § 2163.02. Further, “[m]ere rephrasing of a passage does not constitute new matter. Accordingly, a rewording of a passage where the same meaning remains intact is permissible.” M.P.E.P. § 2163.07. Thus, Figures 1 and 2, and the use of the word “crown” in Applicants’ specification provides adequate support for the recitation of the word “ring.”

In the Office Action, the Examiner also states, with regard to claim 19, “there is confusing antecedent basis for ‘said at least a crown’” and, with regard to claim 21, “there is no antecedent basis for ‘the external boundary.’” Office Action at 3. However, by this Reply, Applicants have amended claims 16 and 19 to delete the phrase “at least.” Applicants have also amended claim 21 to delete the word “the” and insert the word “an” before the term “external boundary.” Thus, the Examiner’s concerns are moot.

Additionally, the Examiner asserts, “The terms ‘orifice’ and ‘nozzle’ are indefinite as to their meaning. . . . Still further claim 20 states that the orifice is ‘exiting in’ nozzles. Orifices generally don’t exit or otherwise move.” Office Action at 3. Again, Applicants

respectfully disagree with the Examiner's characterization of the claims. Nonetheless, Applicants have amended the subject claim language to remove the allegedly objectionable language and recite "ducts terminating in . . . nozzles." Applicants again note that "the subject matter of the claim need not be described literally (i.e., using the same terms or in *haec verba*) in order for the disclosure to satisfy the description requirement" of 35 U.S.C. § 112, first paragraph. M.P.E.P. § 2163.02. Further, "[m]ere rephrasing of a passage does not constitute new matter. Accordingly, a rewording of a passage where the same meaning remains intact is permissible." M.P.E.P. § 2163.07.

Thus, Applicants respectfully request the withdrawal of the rejection of claims 14-22 under 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. § 102

Applicants respectfully traverse the rejection of claims 14-22 under 35 U.S.C. § 102(b) as being anticipated by Cain. In order to properly establish that Cain anticipates Applicants' claimed invention under 35 U.S.C. § 102, every element of the claims in issue must be found, either expressly or described under principles of inherency, in that single reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the... claim." See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Cain fails to disclose every element of Applicants' claims. Amended independent claim 14 recites, in part, "a central nozzle . . . having a concave shaped cross-section; and an annular nozzle surrounding said central nozzle." Cain nowhere appears to disclose such features.

As defined by Applicants, a two-dimensional shape is “concave” if the outer boundary that defines the shape does not contain all line segments that could be drawn from a first point on the outer boundary to a second point on the outer boundary. See Specification at page 3, lines 7-11. A shape is “convex” if the outer boundary that defines the shape does contain all line segments that could be drawn between a first and second point on the outer boundary. Id.

Cain discloses only a central nozzle 36 (in Fig. 3) or 90 (in Fig. 4) surrounded by an annular opening 38 (in Fig. 3) or 92 (in Fig. 4). The orientation of the central and annular nozzles is also illustrated in Fig. 6, which shows a cross-section of the burner and clearly depicts central nozzle 90 surrounded by annular nozzle 92. However, nowhere does the reference appear to disclose a “central nozzle having a concave shaped cross-section.” To the contrary, Cain describes only a central nozzle having a circular shaped cross-section. This circular cross-section of the central nozzle is evident in Figures 3 and 4. Further, Applicants’ specification expressly defines a circle as a “convex” shape and not a “concave” shape. Applicants’ specification states:

For the purpose of the present invention, with “concave” shape it is intended any planar geometrical shape that is not “convex,” wherein a planar geometrical shape is “convex” if it contains all the line segments connecting any pair of its points. Thus, for example, a star is a concave shape, while a circle and a rectangle are convex shapes.

Specification at page 3, lines 7-11. Thus, Cain does not disclose “a central nozzle . . . having a concave shaped cross-section; and an annular nozzle surrounding said central nozzle.”

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of amended independent claim 14 based upon Cain under § 102.

Moreover, claims 15-22 depend from independent claim 14 and thus, contain all the elements and limitations thereof. As a result, dependent claims 15-22 are allowable at least due to their corresponding dependence from independent claim 14.

Claim Scope

It is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicants believe that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

If the Examiner believes that a telephone conversation might advance prosecution of this application, the Examiner is cordially invited to call Applicants' undersigned attorney at (404) 653-6435.

Applicants respectfully submit that the Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether those assertions are addressed specifically herein, Applicants respectfully decline to automatically subscribe to them.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By:

Benjamin D. Bailey
Reg. No. 60,539

Dated: August 31, 2009